

NOVEL ANTIBODY CONJUGATES REACTIVE WITH HUMAN CARCINOMAS

09/290798

ABSTRACT OF THE DISCLOSURE

5 The present invention relates to novel antibodies, antibody  
fragments and antibody conjugates and single-chain  
immunotoxins reactive with human carcinoma cells. More  
particularly, the antibodies, conjugates and single-chain  
immunotoxins of the invention include: a murine monoclonal  
10 antibody, BR96; a human/murine chimeric antibody, ChiBR96; a  
F(ab')<sub>2</sub> fragment of BR96; ChiBR96-PE, ChiBR96-LysPE40, ChiBR96  
F(ab')<sub>2</sub>-LysPE40 and ChiBR96 Fab'-LysPE40 conjugates and  
recombinant BR96 sFv-PE40 immunotoxin. These molecules are  
reactive with a cell membrane antigen on the surface of human  
15 carcinomas. The BR96 antibody and its functional equivalents,  
displays a high degree of selectivity for carcinoma cells and  
possess the ability to mediate antibody-dependent cellular  
cytotoxicity and complement-dependent cytotoxicity activity.  
In addition, the antibodies of the invention internalize  
20 within the carcinoma cells to which they bind and are  
therefore particularly useful for therapeutic applications,  
for example, as the antibody component of antibody-drug or  
antibody-toxin conjugates. The antibodies also have a unique  
feature in that they are cytotoxic when used in the unmodified  
25 form, at specified concentrations.